Bubble Snake

Kit contains:

- 1 bottle of water
- 1 sock
- 2 rubber bands

You will need: scissors, liquid dish soap, a bowl, water, and a tape measure.

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INSTRUCTIONS

Step 1. Drink or drain your bottle of water. Then cut off the bottom of the bottle.

Step 2. Cut off the heel half of the sock as shown.

Step 3. Pull the sock toe over the open bottom of the bottle. Rubber band in place.

Step 4. Squirt a bit of dish soap into a bowl. Add just enough water to create a thin liquid instead of a goo. Mix.

Step 5. Dip the sock end of your device into the soap mixture. Blow through the mouth of the bottle to grow a bubble snake.

LET'S COLLECT DATA!

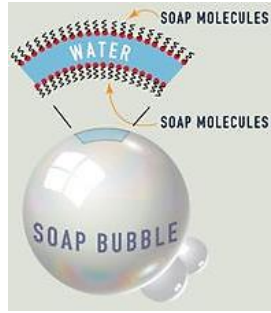
Get out your tape measure and grab a buddy!

1. What is the longest snake you can make?
2. What is the **circumference** or the distance around your snake?
3. What is the circumference of your device, and how does it compare to the snake?
4. What is the greatest distance you can make a separated snake piece fly through the air?

SCIENCE OF SOAP BUBBLES

Soap molecules are made up of a long chain of carbon and hydrogen atoms. The soap molecules have two polar ends—one end likes to stick to water molecules (**hydrophilic**) and the other end repels water molecules (**hydrophobic**).

Let's say you mix soap and water. The soap molecules surround the water molecules. This means the surface of a soap bubble is actually a thin layer of water molecules sandwiched between the soap molecules.



When air is blown into the soap solution, the air gets trapped under the surface of the flexible soap skin, stretching it into a sphere shape and making a bubble.

https://www.rookieparenting.com/bubble-snake-experiment/

http://www.webexhibits.org/causesofcolor/15E.html